Name_____

Everything Breathes!

Answer the following questions as you do this exercise:

1. How can we tell that someone is alive and breathing?_____

   _____

2. What makes us breathe harder? _____

   _____

3. Why do we need to breathe?_____

   _____

4. If many organisms are crowded in a closed place, what happens?_____

   _____

5. Are there any living things that do not breathe? _____

   _____

6. What do we mean when we give someone "artificial respiration"?_____

   _____

Imagine that you shake a bottle of soda.

Bubbles explode from the bottle. How would you prove to a friend that the gas was carbon dioxide?

_____

_____

_____

_____

Describe your observations of the indicator that the teacher demonstrates.

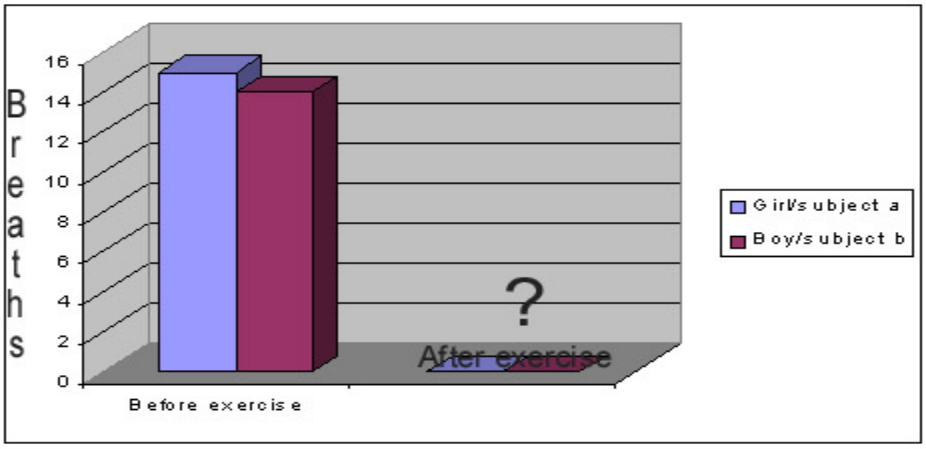
_____

_____

_____

_____

An Imaginary Experiment:



Two students record the number of breaths needed to turn 100 ml of BTB from blue to green. Then they run for 2 miles. Immediately following the run, they again measure the number of breaths needed to turn 100 ml of BTB from blue to green. Predict how their data will change and explain why in a short paragraph.

_____

_____

_____

_____

_____

_____

Your Experiment:

Problem:_____

Hypothesis:_____

Procedure:

_____

_____

_____

_____

Observations:

Subject	Before Exercise	After Exercise
Time to Turn BTB to green		
Time to turn BTB to green		

Conclusion:_____
_____

Discussion:

1. What does your body need to do jumping jacks?

_____

2. What did you observe about the amount of carbon dioxide the subject released?

_____

3. Where is the carbon dioxide coming from?

_____

4. What are the signs that our body is using energy faster?

_____

5. What would happen if our body didn't have food stored?

_____